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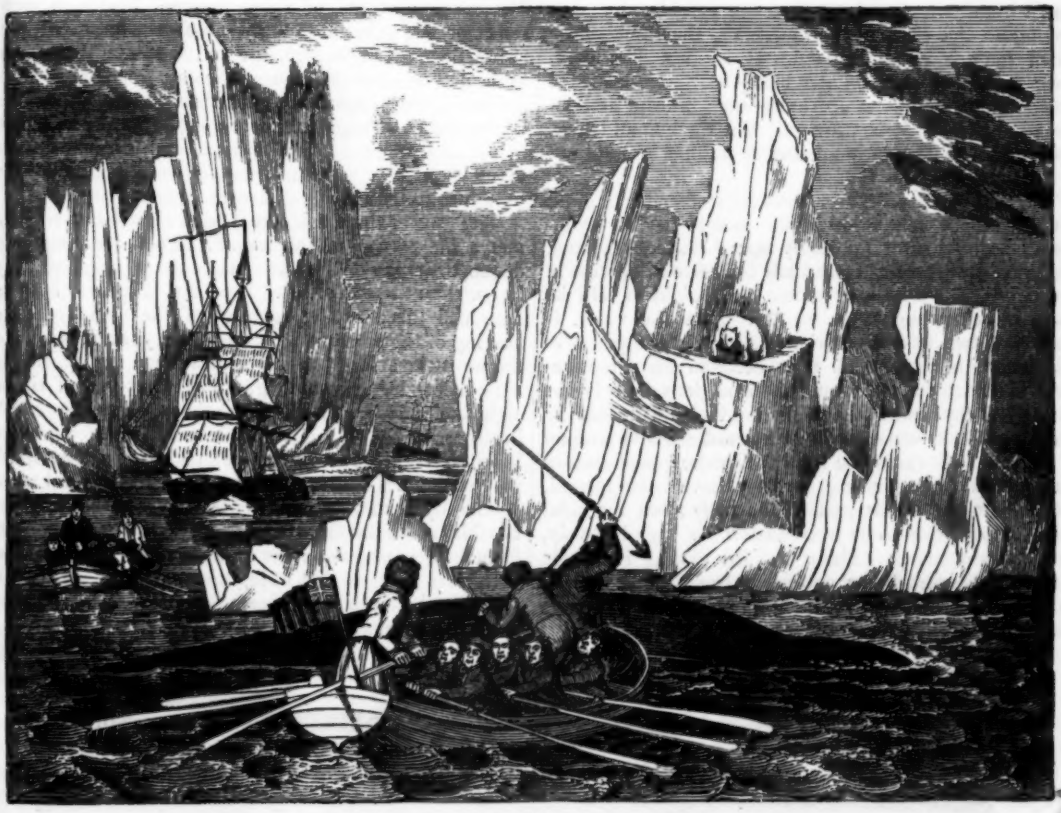
THE WHALE FISHERY



[Harpooning the Whale in the Arctic Seas.]

The animal popularly known by the name of the whale is, at least in its more remarkable varieties, not only what Milton calls the Leviathan in one passage,—that sea-beast

——— "which God of all his works
Created hugest that swim the ocean stream;"—

but the "hugest of living creatures," as the same poet elsewhere describes the monster mentioned in scripture, thus giving it the precedence over even "Behemoth, biggest born of earth." There is no reason to imagine that any creature ever trod the land approaching to the magnitude of this sovereign of the deep. The common Greenland whale (*Balæna mysticetus*) is not unusually 58 or 60 feet in length, by 30 or 40 in circumference. This implies a weight of about seventy tons, being equal to that of two hundred fat oxen. The love of the marvellous, not satisfied with these enormous dimensions, has indeed propagated stories of whales of much larger size. Many naturalists have spoken of such as had attained their full growth measuring sometimes 150 or 200 feet; and some of the older writers assure us, that specimens have been seen of above 900 feet in length: but these statements are, undoubtedly, wild and ignorant exaggerations. Referring to the *Balæna mysticetus*, Captain Scoresby informs us, that of three hundred and twenty-two individuals, in the capture of which he had been personally concerned, no one, he believes, exceeded 60 feet in length. A few instances may have occurred in which eight or ten feet more had been attained; but there is no evidence that the animal was ever seen of a greater length than 70 feet. Sixty feet is the length commonly assigned to it even by the older writers, when they speak from their own observation.

There is, however, another variety, the *Balæna physalis* of Linnæus, or that known by the name of *Razor-back* among the whalers, which reaches a larger size, being sometimes found 100 or 105 feet long. "It is probably," as Captain Scoresby remarks, "the most powerful and bulky of created beings." The Razor-back, however, which derives its name from a small horny protuberance or fin running along the ridge of the back, is no great favourite with the whale-fishers, being both more active and difficult to capture than the common or what they call the *right fish*, and very far from being so valuable a prize when obtained.

In the present state of zoological information naturalists have been only able to determine two species of whale, that of the north, and that of the south. These species were for a long time confounded; and their differences were first pointed out by M. Delalande.

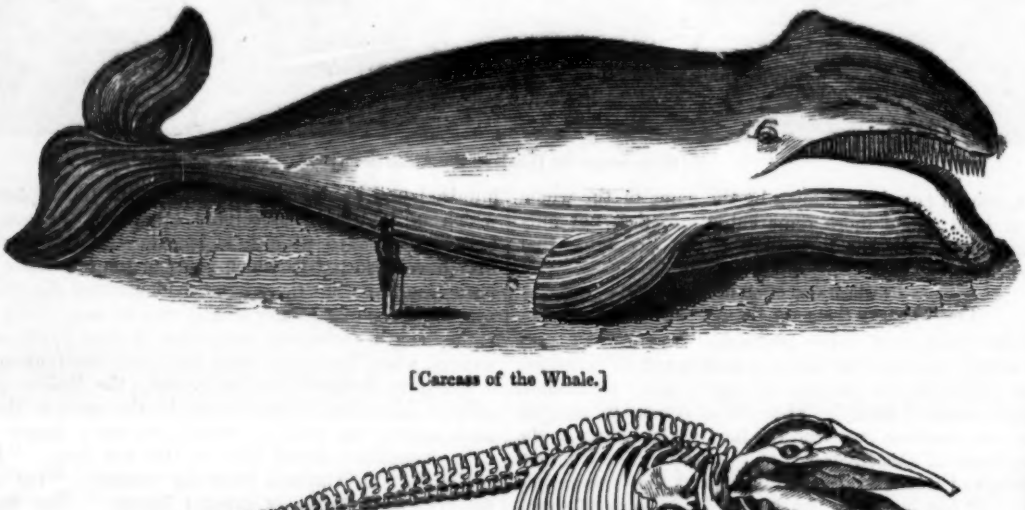
These distinctions are not sufficiently important to be noticed here. The following description of the northern or Greenland whale will apply to the southern, in all essential points. The Asiatic and African elephants are each in the same manner remarkable for such differences of structure, particularly in the form of the head, which are sufficient to constitute distinct species.

The whale is popularly considered as a fish; but, except that it lives in the water, it has little or no similarity to the class of animals properly so designated. It is viviparous, that is to say, it brings forth its young, not enclosed in an egg, but alive and full formed; it has usually but one at a time, which it suckles with milk drawn from its teats. It is therefore considered as belonging to the class of the Mammals, the same under which man is comprehended. It is also, like man, a warm-blooded animal; the blood, however, being of considerably higher temperature than in the human species. Finally, it is provided, like the human being, with lungs, and can only breathe by putting its head out of the water.

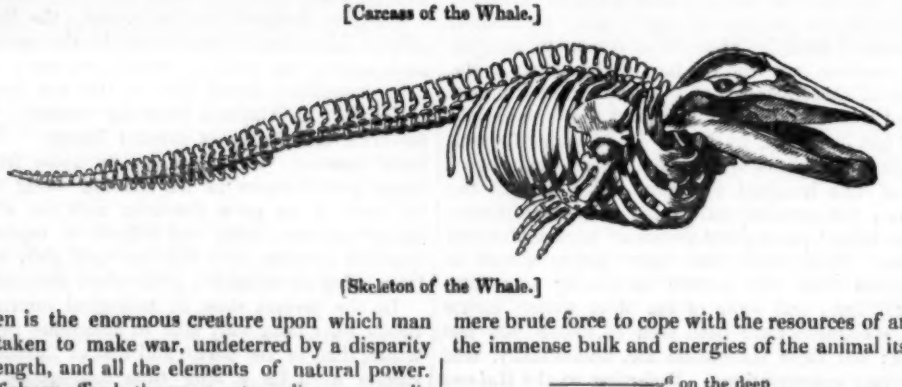
The skin of the whale is dark-coloured, smooth, and without scales. Its form in the middle part is cylindrical, from which it gradually tapers towards the tail. This part of the animal is usually only five or six feet in length; but its width, or extent from right to left, its position being horizontal, or flat upon the water, is sometimes twenty-five or twenty-six feet. The power of this bony fan, as we shall have occasion more particularly to notice in the sequel, is prodigious. It is the instrument by which the animal principally makes its way through the water, and also its most effective weapon of defence. Towards the head it likewise possesses two fins, or swimming paws, as they have been termed, attached to the under part of the belly; but the chief use of these seems to be to balance it, or keep it steady, as it moves along. About a third part of its whole length is occupied by its enormous head, which is cleft in two by a mouth, the opening of which extends to the neck. The head of the whale is the most peculiar and remarkable part of its structure. The species we are now describing, although it has both upper and lower jaws of porous bone, has no teeth, but in their room two fringes, as they may be called, consisting each of a series of blades of an elastic substance covered on their interior edges with hair, attached to the upper gum. This is the substance known by the name of whalebone. The blades are broadest at their upper extremity, where they are inserted in the gum, and are of greatest length in the middle of the series or row on each side of the mouth. The greatest length varies from ten to fifteen feet; and the breadth at the gum is usually, in a full-grown fish, from ten to twelve inches. There are upwards of three hundred blades in each series, or side of bone, as the whale-fishers term it. The use of this part of its structure to the animal is to serve as a net or sieve in which to collect its food. As it proceeds with distended jaws through the ocean, the water rushes through this sieve; but even the minutest living creatures are detained by it, and are made, in so many successive accumulations, to form mouthful after mouthful to the mighty destroyer.

The eyes of the whale are placed almost immediately above the corners of the mouth. They are singularly disproportionate to the size of the animal, being scarcely larger than those of an ox. No trace of an ear is to be discerned till after the removal of the skin; and the hearing of the whale is accordingly very imperfect. On the most elevated part of the head are the nostrils or blow-holes, being two longitudinal apertures of six or eight inches in length. Through these, when the creature breathes, a jet of moist vapour is snorted forth to the height of eighteen or twenty feet, and with a noise which may sometimes be heard at the distance of several miles.

The open mouth of a whale is a capacious cavern, capable of containing a ship's jolly-boat full of men. Captain Scoresby describes its dimensions as being commonly six or eight feet wide, ten or twelve feet high in front, and fifteen or sixteen feet long. The throat, however, is very narrow.



[Carcass of the Whale.]



[Skeleton of the Whale.]

Such then is the enormous creature upon which man has undertaken to make war, undeterred by a disparity of size, strength, and all the elements of natural power. The whale fishery affords the most extraordinary exemplification of how inadequate is the mightiest endowment of mere brute force to cope with the resources of art. Even the immense bulk and energies of the animal itself, that

——"on the deep
Stretched like a promontory sleeps or swims,
And seems a moving land,"

constitute the least formidable among the terrors of this field of adventure. The desolate and inclement region, which is the scene of enterprise, encompasses the pursuit with its worst hardships and dangers. In this realm of eternal winter, man finds the land, the sea, and the air equally inhospitable. Every thing fights against him. The intensest cold benumbs his flesh and joints; while fogs or driving sleet often darken the sky, and at the same time arm the frost with a keener tooth. The ocean over which he moves, besides its ordinary perils, is crowded with new and strange horrors. Sometimes the ice lies extended in fixed beds that bar all navigation as effectually as would a wall of iron, and over whose rugged and broken surface he can only make his way by leaping from point to point, at the risk of being ingulfed at every step. Sometimes it bears down upon him in vast floating fields with such an impetus that, at the shock, the strong timbers of his ship crack and give way like an eggshell, or are crushed and ground to fragments between two meeting masses. Sometimes it rises before him in the shape of a lofty mountain, which the least change in the relative weights of the portion above and that beneath the surface of the water may bring in sudden ruin upon his head, burying crew and vessel beneath the tumbling chaos, or striking them far into the abyss. And as for what may be dimly distinguished to be land, rimming with its precipitous coasts these dreary waters, it may be most fitly described in the lines in which the poet has pictured one of the regions of the nether world:—

> "Beyond this flood, a frozen continent
> Lies dark and wild, beat with perpetual storms
> Of whirlwind and dire hail, which on firm land
> Thaws not, but gathers heap, and ruin seems
> Of ancient pile; or else deep snow and ice."

Almost the only vegetation that springs from this frost-bound soil is a scanty verdure, formed of mosses, lichens, and other low plants, that conceal themselves beneath the snow. At the farthest limit to which adventure has pierced, a night of four months' duration closes each dismal year; throughout which human life has indeed been sustained by individuals previously inured to a severe climate, but the horrors of which have, in most of the instances in which the dreadful experiment has been either voluntarily or involuntarily tried by the natives of more temperate regions, only driven the wretched sufferers through a succession of the intensest bodily and mental tortures, and then laid them at rest in the sleep of death.

From the narrative of the voyage of Ohthere the Dane, given by King Alfred, in his Saxon translation of Orosius, it would appear that the pursuit of the whale was practised by the people of Norway at least as early as the ninth century. Other northern authorities bear testimony to the same fact. Of the manner, however, in which the whale fishery was carried on at this remote era we know nothing. It probably was not pursued on any systematic plan, but merely in the way of occasional encounters, as the hunting of wild animals on land would be practised in the same state of society. The inhabitants of the coast surrounding the Bay of Biscay seem to have been the first who engaged in whale fishing with a view to commercial purposes. They are therefore properly to be considered the originators of the pursuit as a branch of national enterprise. Their prosecution of it in the adjacent seas can be traced back as far as the twelfth century. The animal against which they directed their attacks, however, was most probably of a different species from that found in the northern ocean, and of a much smaller size. It seems to have been captured principally, if not exclusively, for the sake of its flesh, which was in those days esteemed as an article of food, the tongue especially being accounted a great delicacy.

By degrees, however, the number of whales that resorted to the Bay of Biscay diminished, and at length the fish altogether ceased to visit that sea. In these circumstances the Biscayan mariners carried the navigation farther and farther from their own shores, till at last they approached the coasts of Iceland, Greenland, and Newfoundland. Thus was commenced, in the course of the sixteenth century, the northern whale fishery, as pursued in modern times.

The earliest whaling voyage made by the English appears to have taken place in the year 1594. The merchants of Hull are recorded to have fitted out ships for the fishery in 1598; and much about the same time the Dutch engaged in the trade. The Hamburghers, the French, and the Danes quickly followed. At first both in England and Holland the business was carried on by companies which had obtained charters for its exclusive prosecution. At length, however, it was thrown open in both countries to individual enterprise, under which new system it was found to be conducted with much more success and profit. The Dutch monopoly was put an end to in 1642; the English not till long afterwards. In this country, indeed, the trade was in the hands of an exclusive company till about a century ago. Up to that date it had in general been attended only with loss to each successive association that engaged in it.

In 1732 parliament first adopted the plan of attempting to encourage and establish the trade, by giving a bounty to every ship which should engage in it. The bounty was at first twenty shillings a ton; but it was raised in 1749 to double that rate, upon which, says a late writer, "a number of ships were fitted out, as much certainly in the intention of catching the bounty, as of catching fish." The bounty, which was afterwards reduced to thirty shillings, again raised to its former amount, and subsequently reduced first to thirty shillings, then to twenty-five shillings, and after that to twenty shillings, was at last altogether withdrawn in 1824. The trade is at present, therefore, carried on without any artificial support. The Americans, Hamburghers, and Prussians are now almost the only competitors with whom the English whalers have to contend. The French revolution, and the wars by which it was followed, drove both France and Holland from the field; and neither of these countries have succeeded in the attempts they have made since the peace, to re-enter upon a line of enterprise, their pursuit of which had been so long interrupted.

Having thus hastily glanced at the past history and progress of the fishery, we may now transfer ourselves to the scene of actual operations, and accompany the bold and hardy adventurers in some of their labours and dangers.

The whale ships, which are for the most part vessels of from three hundred to four hundred tons burden, commonly leave this country in time to reach Shetland, where they complete their ballast and lay in part of their stock by about the 1st of April, and to get thence to the ice, so as to commence fishing about the middle or in the latter part of May. Of late years, however, the season, which used formerly to terminate in July, has been occasionally somewhat extended both at its commencement and its close,—fish being now frequently sought for with success as early as April, and as late as September, and even October. The place in which the fishing is chiefly carried on has also been changed within these few years. So recently as 1820, when Captain Scoresby's book was published, the greater number of ships still resorted to the part of the Arctic Ocean on the east coast of Greenland; but that sea is now almost, if not entirely deserted, having been, in fact, nearly exhausted of its fish, just as the Bay of Biscay was some centuries ago. Almost all the ships now proceed directly through Davis' Straits to the great inland sea,

called Baffin's Bay, on the other side of Greenland, the more northern portion of which, and the outlets from it, were for the first time explored, in the course of the late voyages made with a view to the discovery of a north-west passage to India. In these high latitudes whales still exist in large numbers; but from the greater prevalence of ice-mountains or ice-bergs, as they are called, the fishery in Baffin's Bay is probably still more perilous than that was which used to be carried on in the animal's more ancient haunt.

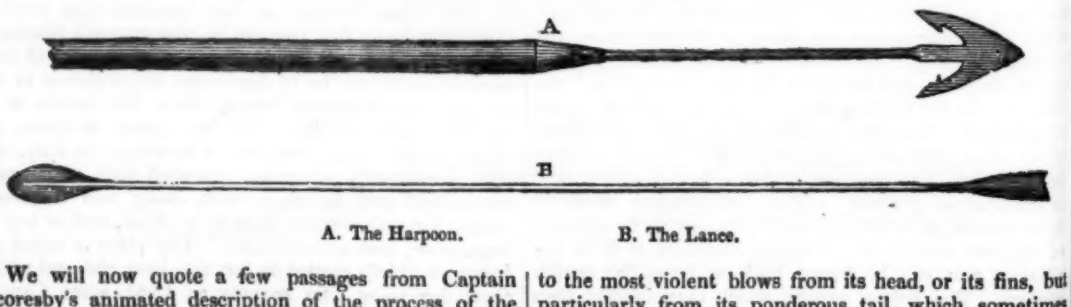
The whale trade has also been gradually shifting from the ports in this country which formerly enjoyed the greatest share of it. Up to about the year 1790, London continued to send out four times the number of ships that sailed from any other place. Even in 1820 the capital still had seventeen or eighteen vessels engaged in the trade. At present we believe this number is reduced to one, or two at most. Liverpool, in like manner, after having for some time carried on the trade to a considerable extent, has now entirely relinquished it. Whitby, also, which sixty or seventy years ago was largely engaged in it, now sends out only one or two ships. Hull is now the principal whale-fishing port in Britain, and has been so since the commencement of the present century. In 1830 that town sent out thirty-three ships. Peterhead, on the east coast of Scotland, ranks next to Hull, having that year sent out thirteen ships. Next to them are Aberdeen, Dundee, Leith, and Kirkaldy. In Peterhead, and most of the other Scotch ports, the trade is on the increase.

The whale, as we have already noticed, appears to have been pursued at first chiefly for the sake of its flesh. Afterwards the highly elastic substance, described before, with which its jaws are lined, formed one of the principal commercial objects on account of which it was valued. "How the ladies' stays were made," gravely observes Anderson, the historian of commerce, "before this commodious material was found out, does not appear; it is probable that slit pieces of cane, or of some tough and pliant wood, might have been in use before." However this may be, whalebone after its introduction speedily came to be the material universally employed in the fabrication of stays, and also of the hoop-petticoat, which came into fashion about the beginning of the last century; that "seven-fold fence," as Pope calls it—

> "Stiff with hoops and armed with ribs of whale."

So great was the consumption of the article thus occasioned that for some time the Dutch are stated to have drawn for it from England £100,000 per annum. Its price was then £700 per ton, which is about four times as much as it now commonly brings, and more than eight times what it brought only a few years ago. But the part of the whale which gives the chief value to the fish is what is called its *blubber*, being the substance from which train oil is obtained. This substance, which is really the fat of the animal, lies immediately under the skin, encompassing the whole body, fins, and tail. "Its colour," says Captain Scoresby, "is yellowish-white, yellow, or red. In the very young animal it is always yellowish-white. In some old animals it resembles the colour of the salmon. It swims in water. Its thickness all round the body is eight, or ten, or twenty inches, varying in different parts as well as in different individuals. The lips are composed almost entirely of blubber, and yield from one to two tons of pure oil each. The tongue is chiefly composed of a soft kind of fat, that affords less oil than any other blubber. . . . The blubber, in its fresh state, is without any unpleasant smell; and it is not until after the termination of the voyage, when the cargo is unstowed, that a Greenland ship becomes disagreeable." The price of oil has varied during the last twenty years from £25 to £60 per ton; but of late has not usually exceeded £30.

A Greenland ship, besides a master and surgeon, generally carries a crew of forty or fifty men, comprising several classes of officers, such as harpooners, boat-steerers, line-managers, carpenters, coopers, &c. She is commonly provided with six or seven boats, which, as affording the principal means by which the fishery is to be carried on, are hung round her in such a manner as to admit of being detached and launched with the greatest possible expedition. After the whale is killed and cut up, the bone and blubber are stowed in the ship; but the attack upon the animal and all the operations of its capture and destruction are carried on in the boats. The chief instruments with which every boat is provided are two harpoons and six or eight lances. These weapons are represented in the wood-cut below. The harpoon is made wholly of iron, and is about three feet in length. It consists of a shank with a barbed head, each barb, or wither, as it is called, having an inner and smaller barb in a reverse position. This instrument is attached by the shank to a line or rope of about two inches and a quarter in circumference, and 120 fathoms in length. Each boat is furnished with six of these lines, making in all 720 fathoms, or 4320 feet. The use of the harpoon, which is commonly projected from the hand, but sometimes from a sort of gun, is merely to strike and hook the fish. It is by the lance that its destruction is accomplished. This is a spear of the length of six feet, consisting principally of a stock or handle of fir fitted with a steel head, which is made very thin and exceedingly sharp. The lance is not flung from the hand like the harpoon, but held fast as it is thrust into the body of the animal.



A. The Harpoon. B. The Lance.

We will now quote a few passages from Captain Scoresby's animated description of the process of the capture and slaughter. "Whenever a whale lies on the surface of the water, unconscious of the approach of its enemies, the hardy fisher rows directly upon it, and an instant before the boat touches it, buries his harpoon in its back. . . . The wounded whale, in the surprise and agony of the moment, makes a convulsive effort to escape. Then is the moment of danger. The boat is subjected to the most violent blows from its head, or its fins, but particularly from its ponderous tail, which sometimes sweeps the air with such tremendous fury that both boat and men are exposed to one common destruction." The whale on being struck immediately dives down into the water with great velocity. It appears, from the line which it draws out, that it goes down at the rate of eight or ten miles an hour. "The moment," continues Captain Scoresby, "that the wounded whale disappears,

or leaves the boat, a jack or flag, elevated on a staff, is displayed, on sight of which, those on watch in the ship give the alarm, by stamping on the deck, accompanied by a simultaneous and continued shout of 'a fall.' (This seems to be a Dutch term, meaning a jump or leap.) At the sound of this the sleeping crew are roused, jump from their beds, rush upon deck, with their clothes tied by a string in their hands, and crowd into the boats. With a temperature at zero, should a *fall* occur, the crew would appear upon deck, shielded only by their drawers, stockings, and shirts, or other habiliments in which they sleep. . . . The alarm of 'a fall' has a singular effect on the feelings of a sleeping person, unaccustomed to the whale-fishing business. It has often been mistaken as a cry of distress. A landsman, in a Hull ship, seeing the crew, on an occasion of a fall, rush upon deck, with their clothes in their hands, and leap into the boats, when there was no appearance of danger, thought the men were all mad." In other cases, the author states, the extraordinary noise and tumult has excited the apprehension that the ship was sinking. "A recent instance," says the writer of an account of the Northern Whale Fishery, in the first volume of the Edinburgh Cabinet Library, "has even been mentioned to us, in which the panic was so extreme that it was speedily followed by death."

The rapidity with which the line is drawn out by the whale, occasions so much friction as it passes over the edge of the boat as frequently to envelope the harpooner in smoke; and it is only by pouring water upon the wood that it is prevented from catching fire. Frequently also the whole line in the first boat is run out before another has arrived. When this result seems approaching, the crew raise first one oar, then a second, a third, and sometimes even a fourth, in proportion to the degree of the exigence. If the line at any time runs foul and cannot be instantly cleared, it will draw the boat under water, on which the only chance the crew often have of saving their lives, is to catch hold each of an oar and to leap into the sea. The utmost care is requisite on the part of every person in the boat to avoid being entangled in the line as it is drawn out. Scoresby mentions an instance in which a man having chanced to slip his foot through a coil, the line drew him forward to the boat's stern, and then snapped off his foot by the ankle. The following is another anecdote which he gives. "A harpooner belonging to the Henrietta of Whitby, when engaged in lancing a whale into which he had previously struck a harpoon, incautiously cast a little line under his feet that he had just hauled into his boat, after it had been drawn out by the fish. A painful stroke of his lance induced the whale to dart suddenly downward, his line began to run out from beneath his feet, and in an instant caught him by a turn round his body. He had but just time to cry out 'Clear away the line'—'O dear!' when he was almost cut asunder, dragged overboard, and never seen afterwards. The line was cut at the moment, but without avail."

The fish generally remains about half an hour, but sometimes a good deal longer, under water, after being struck; and then, it often rises at a considerable distance from the spot from which it had made its descent. "Immediately that it re-appears," continues Captain Scoresby, "the assisting boats make for the place with their utmost speed, and as they reach it, each harpooner plunges his harpoon into its back, to the amount of three, four, or more, according to the size of the whale and the nature of the situation. Most frequently, however, it descends for a few minutes after receiving the second harpoon, and obliges the other boats to await its return to the surface, before any further attack can be made. It is afterwards actively plied with lances, which are thrust into its body, aiming at its vitals. At length, when exhausted by numerous wounds and the loss of blood which flows from the huge animal in copious streams, it indicates the approach of its dissolution by discharging from its blow-holes a mixture of blood along with the air and mucus which it usually expires, and finally jets of blood alone. The sea to a great extent around is dyed with its blood, and the ice, boats, and men are sometimes drenched with the same. Its track is likewise marked by a broad pellicle of oil, which exudes from its wounds, and appears on the surface of the sea. Its final capture is sometimes preceded by a convulsive and energetic struggle, in which its tail, reared, whirled, and violently jerked in the air, resounds to the distance of miles. In dying, it turns on its back or on its side; which joyful circumstance is announced by the capturers with the striking of their flags, accompanied with three lively huzzas!"

The exhaustion which the whale exhibits on returning to the surface after its first plunge is to be attributed to the immense pressure it has sustained from the water at the great depth to which it had descended. At the depth of 800 fathoms, as Captain Scoresby calculates, this pressure must be equal to 211,200 tons. "This," he remarks, "is a degree of pressure of which we can have but an imperfect conception. It may assist our comprehension, however, to be informed that it exceeds in weight sixty of the largest ships of the British Navy, when manned, provisioned, and fitted for a six months' cruise."

A whale has been sometimes captured and killed in little more than a quarter of an hour—and instances on the other hand have occurred in which the contest has lasted for forty or fifty hours. The average time occupied in favourable circumstances, according to Scoresby, may be stated at about an hour. The general average may probably be two or three hours. But it not unfrequently happens that after the exertions of many hours the fish makes its escape and is lost. Our author relates an extraordinary case of a whale struck on the 25th of June, 1812, by one of the harpooners belonging to the Resolution of Whitby, then under his command, which after a long chase broke off, and took with it a boat and twenty-eight lines, the united length of which was 6,720 yards, or upwards of three English miles and three-quarters. The value of the property thus lost was above one hundred and fifty pounds sterling; and the weight of the lines above thirty-five hundred-weight. They soon after, however, again got sight of the animal near two miles off, and immediately re-engaged in the pursuit. They came up with it by great exertions about nine miles from the place where it was first struck. The attack was now renewed. "One of the harpooners," continues Captain Scoresby, "made a blunder; the fish saw the boat, took the alarm, and again fled. I now supposed it would be seen no more; nevertheless we chased nearly a mile in the direction I imagined it had taken, and placed the boats, to the best of my judgment, in the most advantageous situations. In this case we were extremely fortunate. The fish rose near one of the boats, and was immediately harpooned. In a few minutes two more harpoons entered its back, and lances were plied against it with vigour and success. Exhausted by its amazing exertions to escape, it yielded itself at length to its fate, received the piercing wounds of the lances without resistance, and finally died without a struggle. Thus terminated with success, an attack upon a whale, which exhibited the most uncommon determination to escape from its pursuers, seconded by the most amazing strength, of any individual whose capture I ever witnessed. After all it may seem surprising that it was not a particularly large individual; the largest lamina of whalebone only measuring nine feet six inches, while those affording twelve feet *bone* are not uncommon. The quantity of line withdrawn from the different boats engaged in the capture was singularly great. It

amounted altogether to 10,440 yards, or nearly six English miles. Of these thirteen new lines were lost, together with the sunken boat; the harpoon connecting them to the fish having dropt out before the whale was killed." There had been eight boats in all engaged in this extraordinary chase.

Of the dangers sometimes occasioned by the resistance of the whale, or its efforts to retaliate upon its assailants, Captain Scoresby relates various instances. It has happened that the harpooner has been struck dead in an instant by a blow from the animal's tail. At other times the stroke has fallen upon the boat and jerked the crew out of it into the water. "A large whale," says our author, "harpooned from a boat belonging to the same ship (the Resolution of Whitby) became the subject of a general chase on the 23d of June, 1809. Being myself in the first boat which approached the fish, I struck my harpoon at arm's length, by which we fortunately evaded a blow that appeared to be aimed at the boat. Another boat then advanced, and another harpoon was struck; but not with the same result; for the stroke was immediately returned by a tremendous blow from the fish's tail. The boat was sunk by the shock, and at the same time whirled round with such velocity, that the boat-steerer was precipitated into the water, on the side next to the fish, and was accidentally carried down to a considerable depth by its tail. After a minute or so he arose to the surface of the water and was taken up along with his companions into my boat. A similar attack was made on the next boat which came up; but the harpooner being warned of the prior conduct of the fish, used such precautions, that the blow, though equal in strength, took effect only in an inferior degree. The boat was slightly stove. The activity and skill of the lancers soon overcame this designing whale, accomplished its capture, and added its produce to the cargo of the ship."

Such intentional mischief, Captain Scoresby remarks, on the part of a whale as seems to have been displayed in this instance, is not frequent. It is probable, indeed, that nothing properly deserving the name of an intention to inflict injury can justly be attributed to the animal in any circumstances; these violent movements are merely the convulsions either of agony, or of trepidation and intense fear. With all its enormous physical strength the whale is singularly gentle and harmless—so remarkably so indeed that it has been characterized by those who have had the best opportunities of observing it as a stupid animal. It would require better proof, however, we think, than the mere absence of ferocity to make out this conclusion. There are some circumstances which would rather seem to show that the creature is possessed of considerable sagacity. It exhibits the usual instinctive sense of danger when it perceives the approach of its natural enemy, man; and, both before and after it has been struck with the harpoon, it most commonly adopts the very best expedients open to it to give itself a chance of escape. If a field of ice be near, for instance, it makes for the water under it, whither it cannot be followed by the boat; and even when it tries to release itself merely by a precipitate plunge downwards into the sea, it would be difficult to say how it could act more wisely with a view to snap the line to which it has got attached. If the effort were not met on the part of the crew in the boat with the most energetic application of those various resources of art, dexterity, and decision, which are peculiarly at the command of man, it would probably be in every case successful. If it be the fact, also, as is asserted, that the whales of the North Seas have abandoned certain parts of their original domain, which are more accessible to the fishing-vessels, and retired to other situations which are more difficult of approach; this would seem to imply, not only something of reflection and contrivance in individuals, but almost the possession of a power in the species to transmit the results of experience from one generation to another. But be this as it may, if the whale should not be allowed to be a very intellectual animal, its affections, at least, towards its own kind, appear to be deep-seated and strong. The fishers, indeed, are in the habit of taking advantage of the love of the old whale for its offspring, to entice it into their snares; and the artifice often succeeds when, probably, no other would. The cub, though of little value in itself, is struck, to induce the mother to come to its assistance. "In this case," says Captain Scoresby, "she joins it at the surface of the water, whenever it has occasion to rise for respiration; encourages it to swim off; assists its flight, by taking it under her fin; and seldom deserts it while life remains. She is then dangerous to approach; but affords frequent opportunities for attack. She loses all regard for her own safety, in anxiety for the preservation of her young;—dashes through the midst of her enemies;—despises the danger that threatens her;—and even voluntarily remains with her offspring, after various attacks on herself from the harpoons of the fishers. In June 1811, one of my harpooners struck a sucker, with the hope of its leading to the capture of the mother. Presently she arose close by the 'fast-boat;' and seizing the young one, dragged about a hundred fathoms of line out of the boat with remarkable force and velocity. Again she arose to the surface; darted furiously to and fro; frequently stopped short, or suddenly changed her direction, and gave every possible intimation of extreme agony. For a length of time she continued thus to act, though closely pursued by the boats; and, inspired with courage and resolution by her concern for her offspring, seemed regardless of the danger which surrounded her. At length, one of the boats approached so near, that a harpoon was hove at her. It hit, but did not attach itself. A second harpoon was struck; this also failed to penetrate: but a third was more effectual, and held. Still she did not attempt to escape, but allowed other boats to approach; so that, in a few minutes, three more harpoons were fastened; and, in the course of an hour afterwards, she was killed."

In some instances, the boat, instead of being struck into the water, has met with the equally alarming fate of being projected by a stroke of the powerful animal's head or tail into the air. The following remarkable instance of this is given by Captain Scoresby.

"Captain Lyons, of the Raith of Leith," says our author, "while prosecuting the whale fishery on the Labrador coast, in the season of 1802, discovered a large whale at a short distance from the ship. Four boats were despatched in pursuit, and two of them succeeded in approaching it so closely together, that two harpoons were struck at the same moment. The fish descended a few fathoms in the direction of another of the boats, which was on the advance, rose accidentally beneath it, struck it with its head, and threw the boat, men, and apparatus about fifteen feet into the air. It was inverted by the stroke, and fell into the water with its keel upwards. All the people were picked up alive by the fourth boat, which was just at hand, excepting one man, who, having got entangled in the boat, fell beneath it, and was unfortunately drowned. The fish was afterwards killed." The wood-cut in page 208 is copied from an engraved sketch of this singular accident, which Scoresby has given after an original drawing by James Waddel, Esq.

In the early days of the whale fishery, when the fish were found in great numbers immediately around the shores of Spitzbergen, the Dutch formed a settlement on that island, and performed there all the operations of preparing the bone and extracting the oil from the blubber. To so flourishing an extent was the fishery at this

time (the latter part of the seventeenth century) carried on by that nation, that they actually erected a village on this desolate coast, all the houses of which were brought ready prepared from Holland. They gave it the name of *Smeerenberg* (from *Smeeren*, to melt). "This," says Mr. Macculloch, "was the grand rendezvous of the Dutch whale ships, and was amply provided with boilers, tanks, and every sort of apparatus required for preparing the oil and the bone. But this was not all. The whale fleets were attended by a number of provision ships, the cargoes of which were landed at Smeerenberg; which abounded during the busy season with well-furnished ships, good inns, &c., so that many of the conveniences and enjoyments of Amsterdam were found within eleven degrees of the pole! It is particularly mentioned, that the sailors and others were every morning supplied with what a Dutchman regards as a very great luxury—*hot rolls* for breakfast. Batavia and Smeerenberg were founded nearly at the same period, and it was for a considerable time doubted whether the latter was not the most important establishment."

When the whales, however, at length entirely abandoned this neighbourhood, and were not to be found within a distance of about two thousand miles, Smeerenberg was deserted. The exact spot where it stood is now a matter of doubt. Since then the only operation performed upon the whale in its native region after its capture, has been the process called *flensing*, that is, the clearing the carcass of its bone and blubber. This is effected by bringing the dead animal alongside the ship, and, after it has been secured there, sending down the men upon it, having their feet secured with spurs, to prevent them from slipping, who by means of knives and other proper instruments cut off the blubber in slips. After one side has been cleared there is a contrivance for turning the fish over upon the other. The blubber is received from the flensers by the boat-steerers and line-managers, who, after dividing it into smaller pieces, hand it over to two men called *kings*, by whom it is finally deposited in the ship's hold. While this process is going on, various birds of prey attend in great numbers, and bears and sharks are also at no great distance, ready to fall upon the remainder of the carcass before it sinks into the deep. The operation of flensing is commonly performed by British fishers in about four hours. Even this part of the business, although the struggle with the living animal is now over, is far from being without its perils. "Flensing in a swell," says Captain Scoresby, "is a most difficult and dangerous undertaking; and when the swell is at all considerable, it is commonly impracticable. No ropes or blocks are capable of bearing the jerk of the sea. The harpooners are annoyed by the surf, and repeatedly drenched in water; and are likewise subject to be wounded by the breaking of ropes or hooks of tackles, and even by strokes from each other's knives. Hence accidents in this kind of flensing, in particular, are not uncommon. The harpooners not unfrequently fall into the fish's mouth, when it is exposed by the removal of a surface of blubber; where they might easily be drowned, but for the prompt assistance which is always at hand. Some years ago I was witness of a circumstance, in which a harpooner was exposed to the most imminent risk of his life, at the conclusion of a flensing process, by a very curious accident. This harpooner stood on one of the jawbones of the fish, with a boat by his side. In this situation, while he was in the act of cutting the kreng (the skeleton) adrift, a boy inadvertently struck the point of the boat-hook, with which he usually held the boat, through the ring of the harpooner's spur; and, in the same act, seized the jawbone of the fish with the hook of the same instrument. Before this was discovered, the kreng was set at liberty, and began instantly to sink. The harpooner then threw himself towards the boat; but being firmly entangled by the foot, he fell into the water. Providentially, he caught the gunwale of the boat with his hands; but, overpowered by the force of the sinking kreng, he was on the point of relinquishing his grasp, when some of his companions got hold of his hands, while others threw a rope round his body. The carcass of the fish was now suspended entirely by the poor fellow's body, which was, consequently, so dreadfully extended, that there was some danger of his being drawn asunder. But such was his terror of being taken under water, and not indeed without cause, for he could never have risen again, that notwithstanding the excruciating pain he suffered, he constantly cried out to his companions to 'haul away the rope.' He remained in this dreadful state until means were adopted for hooking the kreng with a grapnel, and drawing it back to the surface of the water. His escape was singularly providential: for, had he not caught hold of the boat as he was sinking, and met with such prompt assistance, he must infallibly have perished."

Our space will not permit us to pursue this part of our subject to greater length, or to enter upon any details respecting the terrible dangers and sufferings which the frequenters of those inhospitable seas have often encountered when the ice, closing in upon them, or dashing their ships in pieces, has left them no place even of temporary refuge, except on its own rugged surface, and apparently shut them out from all the chances of ultimate deliverance. The annals of the whale fishery abound in such narratives; many of which are of absorbing interest.

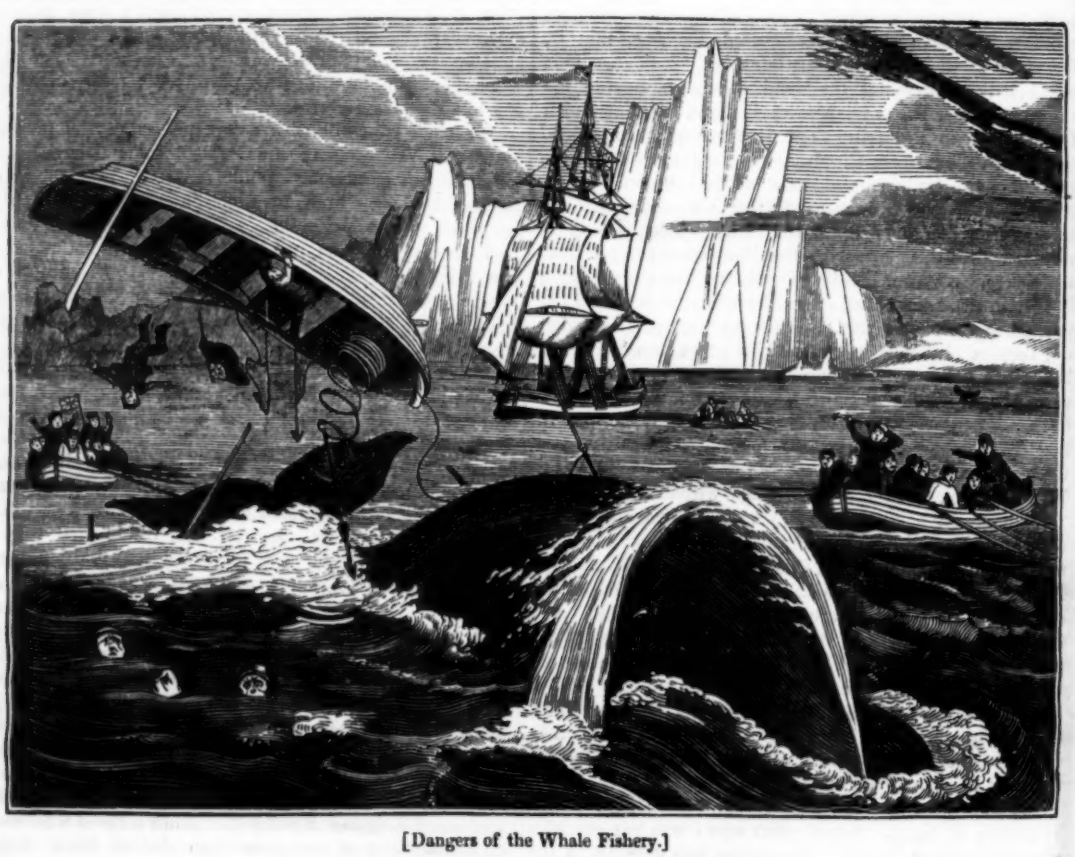
We shall conclude with a few notices of the present state and prospects of the British whale fishery, considered in a commercial point of view. For the particulars we are about to mention we are principally indebted to Mr. Macculloch's Dictionary of Commerce, and to the volume we have already mentioned of the Edinburgh Cabinet Library, the third edition of which, published not many months ago, contains, we believe, the latest account of the fishery that has yet appeared.

According to Captain Scoresby, the average quantity of shipping fitted out for this trade for the nine years ending with 1818, in all the English ports, namely, Hull, London, Whitby, Newcastle, Liverpool, Berwick, Grimsby, and Lynn, was 91½ vessels; and in the Scotch ports, namely, Aberdeen, Leith, Dundee, Peterhead, Montrose, Banff, Greenock, Kirkaldy, and Kirkwall, 40½. In 1830 the former quantity had diminished to 41; while the latter had only increased to 50. Upon the whole therefore there has been a falling off in the course of twelve years to the extent of about 30 per cent. The season of 1830 was one of the most disastrous ever known since the commencement of the fishery. Of the ninety-one vessels which sailed nineteen were entirely lost; as many more returned clean, or without a single fish; seventeen brought only one fish each; and of the others many had only two or three. The actual loss incurred from the shipwrecks, and the severe injuries sustained by twelve other vessels, is calculated to have amounted to about £143,000. Both oil and whalebone immediately rose to more than double their former price; but still the whole produce of the fishery of this year did not amount, according to the highest estimate, to more than £155,565; while that of 1829 was reckoned at £376,150. The season of 1831 was also unfortunate, though not to the same extent; three of the vessels having suffered shipwreck. The produce as compared with that of the preceding year was, in oil 4800 tons in place of 2205, and of bone 230 tons in place of 119. But in 1829 there had been obtained 10,672 tons of oil, and 607 tons of bone; and in 1828, of oil 13,966 tons, and of bone 802 tons. The value of the whole produce of the fishery of 1831, when oil had

fallen from £50 to £30, and whalebone from £380 to £200, was estimated only at £190,000. The season of 1832 was considered prosperous.

It would be unfair, however, to judge of the value of the trade entirely from these two years. "The British fishery," it is remarked by the writer in the Edinburgh Cabinet Library, "has lately yielded a produce and value much exceeding that of the Dutch, even during the period of its greatest prosperity. In the five years ending with 1818, there were imported into England and Scotland 68,940 tons of oil, and 3,420 tons of whalebone; which, valuing the oil at £36 10*s.* and the bone at £90, with £10,000 in skins, raised the entire product to £2,834,110 sterling, or £566,822 per annum. The fishery of 1814, a year peculiarly fortunate, produced 1437 whales from Greenland, yielding 12,132 tons of oil, which, even at the lower rate of £32, including the whalebone and bounty, and added to the produce from Davis' Straits, formed altogether a value of above £700,000."

These, however, it is to be remembered, were the days of the bounty, which it is calculated cost the nation, from 1750 to 1824, upwards of two millions and a half. When we strike the account of national profits, therefore, resulting from this source, a deduction must be made from the apparent returns to the amount of that large outlay. But there are various considerations besides those already noticed, which seem to forbid us to indulge any expectation that the whale fishery can be long maintained as a great branch of national industry. Nearly every other people which has engaged in it has, in course of time, been withdrawn from it by circumstances, or abandoned it as a losing pursuit. The different seas in which it has been formerly carried on have all been successively exhausted of their stores; and that which is now principally resorted to is no doubt destined, ere long, to the same fate. Science and art, on the other hand, threaten to destroy the importance of the trade by the discovery of substitutes for its different products. The invention of illumination by gas has already rendered us independent of oil in regard to what was formerly its chief use. The pursuit is, after all, to be considered rather as a species of gambling adventure than as partaking of the nature of a regular branch of commercial enterprise. As in many other games, skill has, indeed, a certain part to play; but still the issue depends mainly upon chance. The same captain, in the same vessel, and exerting himself with the same ability and energy, may bring home a valuable cargo one year, and a clean ship the next. It is what has repeatedly happened.



[Dangers of the Whale Fishery.]

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